South Korea

Type of Market: Moderate/Challenging

South Korea ranks highly because of its extensive and well developed ICT infrastructure and emphasis on supporting innovation in next generation technology, such as Health IT. 4G/LTE service and broadband Internet cover the entire population, with plans to upgrade services to 5G in preparation for the 2018 Olympics. R&D expenditure relative to GDP is among the highest in the world. While no Health IT policies have been implemented, the Korean government does have regulations on health, ICT, and data privacy, security, and storage that will affect the Health IT sector. Additionally, hospitals have begun to implement electronic systems, such as electronic medical records. However, the ability to provide mobile health and telehealth services is sharply restricted at the present time. For U.S. companies, competition with local telecommunications operators and giants like Samsung and LG may limit opportunities in the Korean market. However, these large international companies may also offer partnerships for smaller companies to enter the Korean market.



South Korea ranks as a top market for Health IT particularly because of its aging population and well established ICT infrastructure. The Organisation for Economic Cooperation and Development (OECD) predicts that total population over 65 will increase from 11 percent of the population in 2010 to 37 percent by 2050 31 due in part to a low fertility rate. The aging population also has a high burden of noncommunicable diseases, such as cardiac disease, obesity, cancer, and diabetes, accounting for over 70 percent of deaths. The government has supported education and intervention programs around noncommunicable and lifestyle diseases and therefore may promote use of Health IT in the future.

Health spending is only 7.4 percent of GDP, one of the lowest in the OECD, but that number is growing faster than in other countries due primarily to costs of hospital services. Hospitals average 9.2 beds per 1,000 persons, which is high for the region. 32 However, the physician density is unusually low, at 2 per 1,000 persons. More than 80 percent of healthcare institutions and service providers are located in urban areas, commensurate with population distribution (approximately 90 percent in urban areas). However, there are some small islands and remote regions in Korea that would benefit from increased access to health services. In 2009, a telemedicine pilot program was set up in three remote counties, and has seen an almost three-fold increase in patient cases, rising to more than 4,800 in 2012. The program became

permanent in 2011, and has been expanded to two more counties. ³³

Korea has a three-tier medical system: 1) private hospitals and public health centers that have limited services and are for early intervention; 2) inpatient and outpatient care and emergency services; and 3) general hospitals or medical school hospitals which are the largest, have more services, but are very expensive. ^{34,35} The private hospitals and public health centers do not generally perform the usual coordination and continuous care services found in primary care services in other countries, leading to limited patient referrals and impacting overall system efficiency.

Additional outpatient resources, such as rehabilitation and long-term care, cannot keep up with demand. With such high quality medical services available, South Korea has become a destination for medical travel from other Asian and Central European countries. Korea has a compulsory national health insurance with high quality healthcare available. The government health insurance plan puts the financial burden on individuals through high copayments (up to 40 percent of costs). This results in 47 percent of healthcare spending coming from the private sector. Cost reduction technologies, particularly those geared towards consumers directly, may have a large market.

Korea ranks number one in the Report for research and development spending (4 percent of GDP). This reflects

an overall high interest in innovation, particularly in technology. In healthcare, the government has supported high-tech research and development through establishment of High-tech Medical Clusters, one of which (Daegu-Gyeongbuk) has an ICT focus. ³⁶ While expenditures support domestic research, U.S. companies also have an opportunity for collaboration with local researchers.

Additionally, the culture is favorable for supporting next-generation products and services with high spending per capita, particularly on ICT. A large portion of the Korean population has mobile (111 percent) or Internet (97 percent) subscriptions, and there is high penetration of desktops, notebooks, and tablets. The country is supported by an extensive 4G network with plans to upgrade some services to 5G by the 2018 Olympics in PyeongChang.

Challenges in the Market

Government policies and regulations currently exist for data privacy and security, medical devices, public health, and ICT, but not specifically for Health IT. The government has developed an "e-Health roadmap" which may start discussions towards a larger Health IT policy. However, five different agencies currently have jurisdiction over aspects of Health IT, making coordination between agencies and updating current ICT regulations challenging.

Historically, availability of telehealth services in Korea has been extremely restricted (limited to the 2009 program noted above), as medical practice laws forced patients to see doctors in person, effectively precluding a market for telehealth products and services. However, in March 2014 Korea's Cabinet passed a bill allowing a six-month pilot program to be launched permitting doctors to utilize telehealth technology to diagnose and treat remote patients, which then went to the legislature for approval.

If the pilot program is successful, telemedicine legislation will be considered in 2015. ³⁷ However, existing laws will need to reviewed and amended (if needed) in order to further expand the presence of

telehealth in Korea, and policymakers will also have to address opposition from some medical professionals and civic organizations.

Reimbursements for Health IT are still not common in Korea. The National Health Insurance Corporation offers Long-Term Care Insurance specifically for the elderly which covers healthcare services but also lifestyle needs, such as cooking and nursing. 38 While telehealth is not currently covered, the framework is in place to support such coverage in the future.

Local market competition is strong. All three telecommunications operators and other large Korean companies are entering into the Health IT market. For instance, Samsung is particularly interested in the healthcare sector and has had discussions with other multinational firms about possible partnerships. Samsung has also shown interest in purchasing Health IT products and services from other companies, proving possible opportunities for small- and mediumsized U.S. companies to enter the Korean market.

Opportunities for U.S. Companies

The strained medical system, combined with a primarily urban population and 4G network availability, create a positive environment to support an increased presence of innovative health products and services. Because local competition is strong, U.S. companies need to cooperate with local giants or have a strong marketing plan to effectively compete.

While the ICT infrastructure is particularly strong, plans to upgrade to 5G may support more advanced Health IT in the long-term.

So far the public and private hospital systems have installed a wide spectrum of electronic systems, including electronic medical records (EMRs). However, interconnected electronic systems are not widespread in Korea at present, in part due to low deployment of EMR interconnectivity standards. As a result, many reports are still on paper. Therefore, there is a ready market for Health IT solutions and systems.

















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